

CENSUS OF FATAL OCCUPATIONAL INJURIES KANSAS, 1996

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**Prepared by
Kansas Department of Health and Environment
Center for Health and Environmental Statistics
Office of Health Care Information**

**In cooperation with the
U.S. Department of Labor, Bureau of Labor Statistics**

**Kansas Department of Human Resources
Division of Workers' Compensation**

and

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INTRODUCTION

Fatality information appearing in this report was collected through the Census of Fatal Occupational Injuries (CFOI) program, a cooperative agreement between the U.S. Department of Labor, Bureau of Labor Statistics (BLS) and the Kansas Department of Health and Environment, Office of Health Care Information. The CFOI program was developed by BLS to provide a comprehensive, accurate, descriptive and accessible census of work related fatalities. The program was piloted for the nation in 1988 and Kansas joined the program in 1991. The information presented in this publication covers injury fatalities that occurred in Kansas in 1996.

Although the focus of the CFOI program is on injury-related deaths, illnesses that are determined to be work-related or that occur at work, such as heart attacks, are also considered to be within the scope of the program.

A detailed description of the scope of the program and methods of collection can be found in the Appendix.

Information produced by the CFOI program should be useful in:

- ▶ tracking trends of workplace hazards
- ▶ targeting high hazard work conditions and practices
- ▶ establishing priorities for safety inspections and follow-up visits
- ▶ identifying standards requiring stricter enforcement
- ▶ finding areas where new standards may be needed

Traditionally, the CFOI data is used by many different individuals and groups, including economists, statisticians, epidemiologists, safety specialists, business and government executives, news media and program managers.

Numbers are omitted from the tables and noted as not meeting publication criteria when a category has fewer than three occupational fatalities.

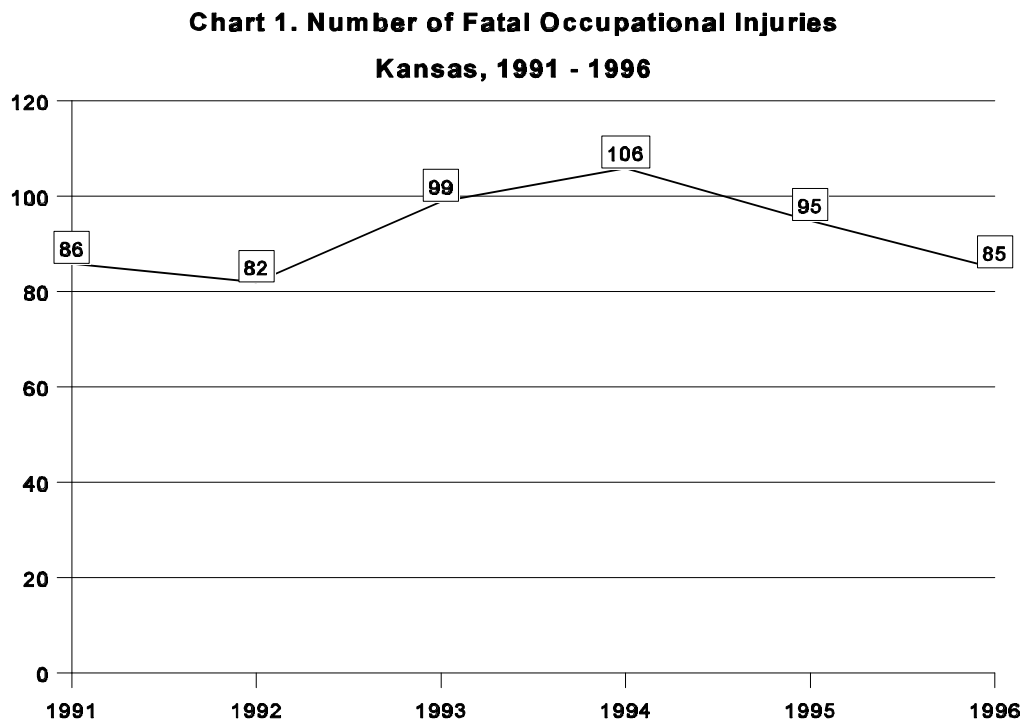
Copies of this report as well as additional information may be obtained by contacting the Kansas Department of Health and Environment at the address, phone and fax number listed below. This report is also available in an electronic form by contacting KDHE or accessing the KDHE home page at "<http://www.ink.org/public/kdhe>".

If you desire a copy of this publication in alternative form because of a disability, contact our office at the address listed below.

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Highlights, 1991 - 1996

The number of occupational injury-related deaths for 1996 was 85, the second lowest number of deaths during the six years in which CFOI data has been collected in Kansas. The number of deaths from fatal occupational injuries has ranged from a low of 82 in 1992 to a high of 106 in 1994. The low number of deaths in 1992 was partly due to an unusually low number of deaths in the construction industry (8). The high number of deaths in 1994 can be attributed in part to the unusually high number of deaths in retail trade (15) which was approximately three times the number of deaths seen in this industry in the other years of this time period. (Chart 1, Chart 2, Table 1)



The number of fatal occupational injuries in agriculture in Kansas in 1996 (18) was half of what it was in 1993 (36). (Chart 2, Table 1)

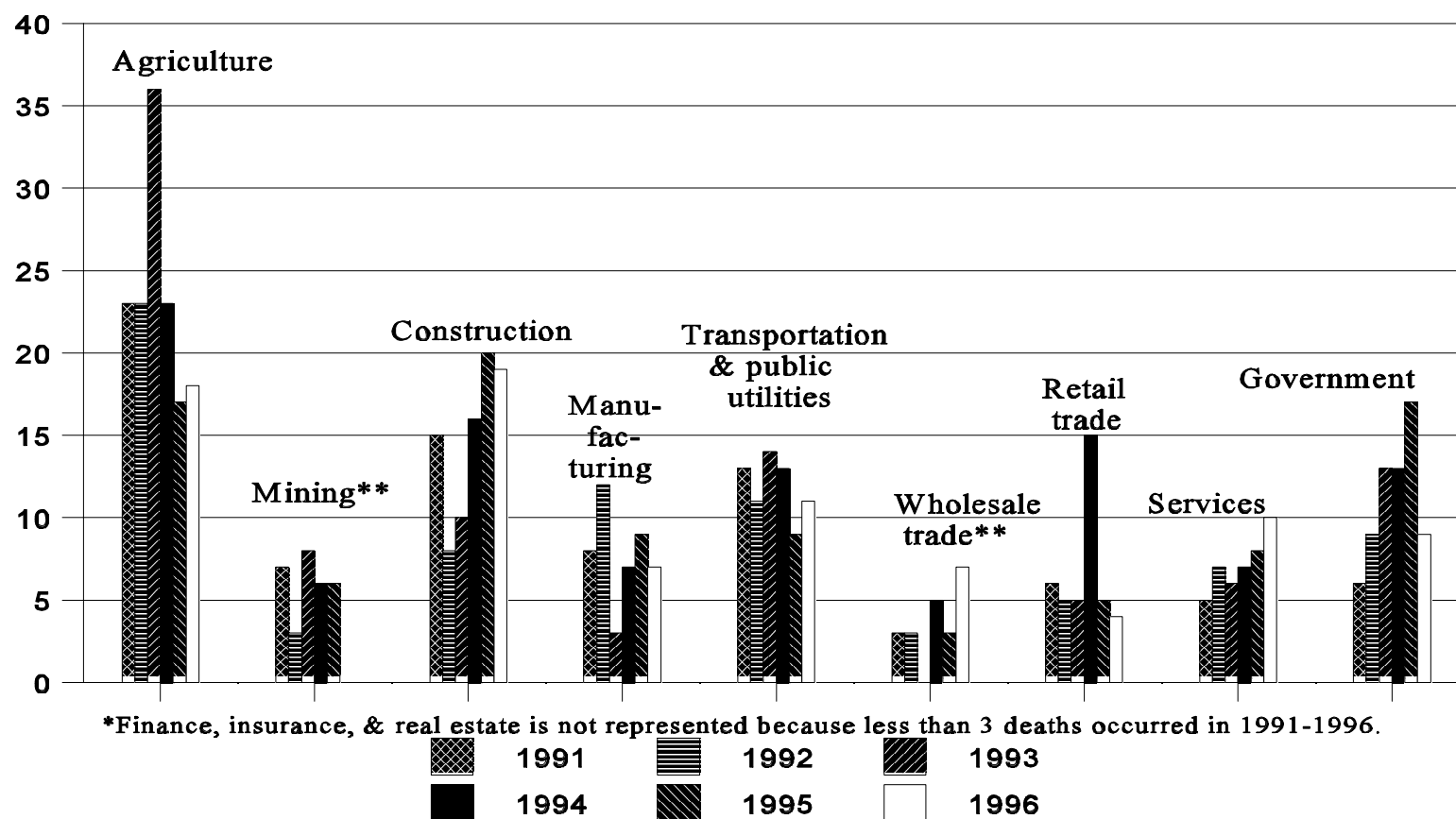
The manufacturing industry had its safest year during the 1991 - 1996 time period in 1993 with 3 deaths. This compares to a high of 12 in 1992. (Chart 2, Table 1)

Twice as many workers in the Services industry died on the job in 1996 (10) compared to the low of 5 in 1991. (Chart 2, Table 1)

The number of occupational fatalities in the transportation and public utilities industry were the most stable during the 1991 - 1996 time frame with a low of 9 in 1995 and a high of 14 in 1993. (Chart 2, Table 1)

An unusually high number of government workers died in 1995 (17) from fatal occupational injuries. This compares to a low of 6 in 1991. (Chart 2, Table 1)

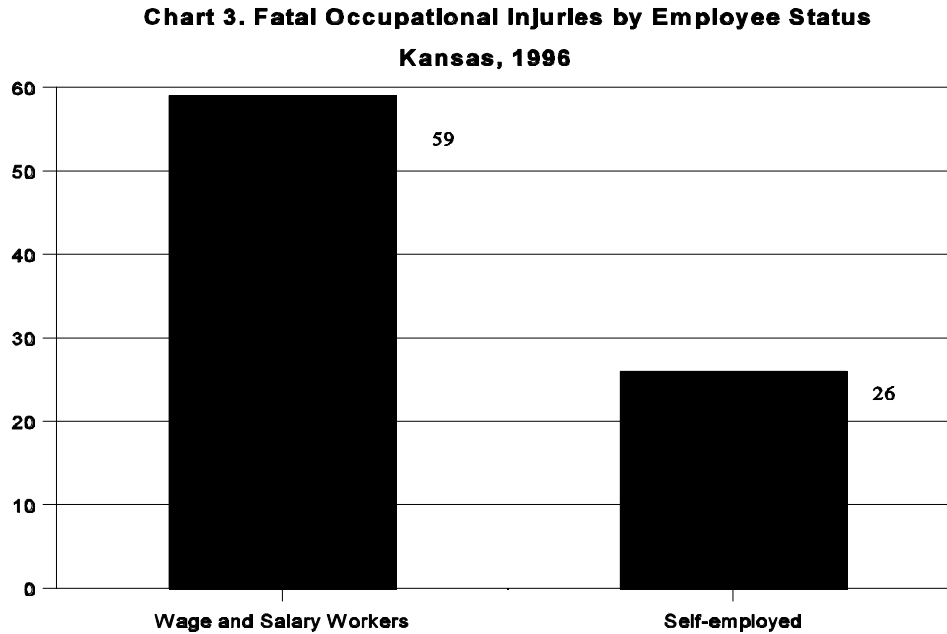
**Chart 2. Number of Fatal Occupational Injuries
By Industry*, Kansas, 1991 - 1996**



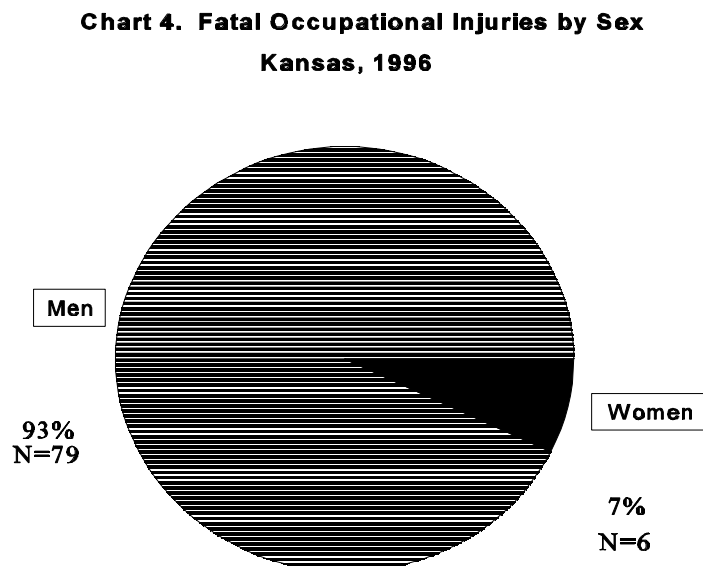
**1996 is not represented for Mining and 1993 is not represented for Wholesale trade because less than 3 deaths occurred in those industries for those years.

Demographic Highlights

Over two thirds, or 59 of the workers killed in occupational incidents in Kansas in 1996, were wage and salary workers. The other 26 were self-employed. (Chart 3, Table 2)

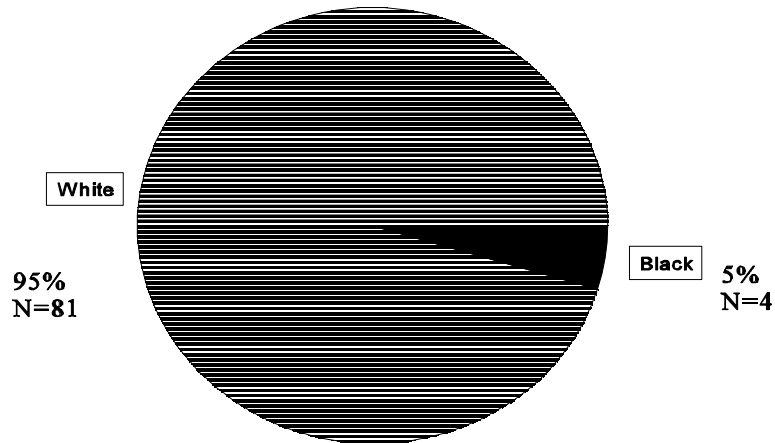


Occupational fatalities occurred much more often to men than women in Kansas in 1996 with 79 (93%) of the fatality victims being male compared to 6 (7%) female. The six females worked in a variety of occupations and industries. Four of the six died in transportation related incidents. (Chart 4, Table 2)



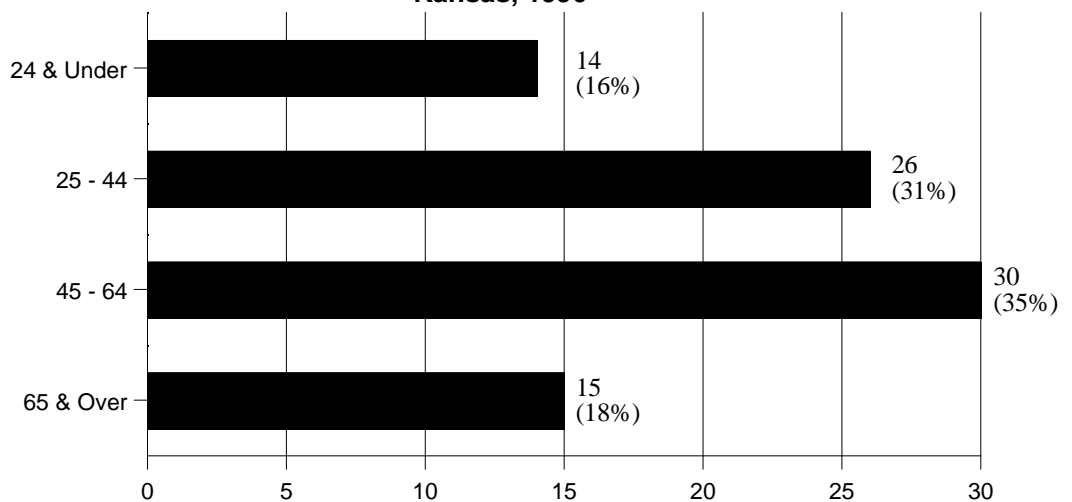
Eighty-one of the 85 workers (95%) who were killed in 1996 in Kansas were white while 4 were black (5%). (Chart 5, Table 2)

Chart 5. Fatal Occupational Injuries by Race
Kansas, 1996



The highest number of occupational fatalities occurring in Kansas in 1996 were to workers 45-64 years of age. 30 of the 85 deaths (35%) occurred in this age-group while 26 occurred in the 25-44 age-group, 15 in the 65 & over age-group and 14 in the 24 and under age-group. There were three fatalities to workers 18 and under. (Chart 6, Table 2)

Chart 6. Fatal Occupational Injuries by Age-Group
Kansas, 1996

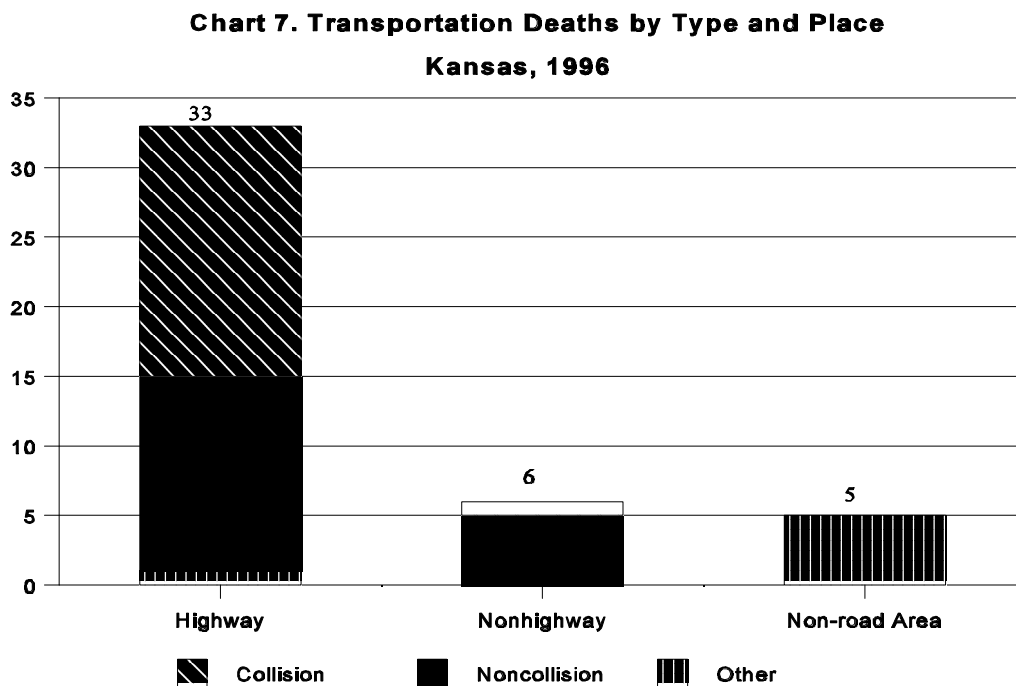


Event or Exposure

Transportation incidents, of which there were 44, accounted for over half (52%) of the 85 fatal occupational injuries that occurred in Kansas in 1996. The bulk of these, 33, were highway incidents, 18 from collisions and 14 from noncollision incidents. The 18 collisions included 6 head-on collisions and 9 intersection collisions; 12 of the 14 noncollision incidents were jack-knife/overtake incidents. (Chart 7, Chart 8, Table 3)

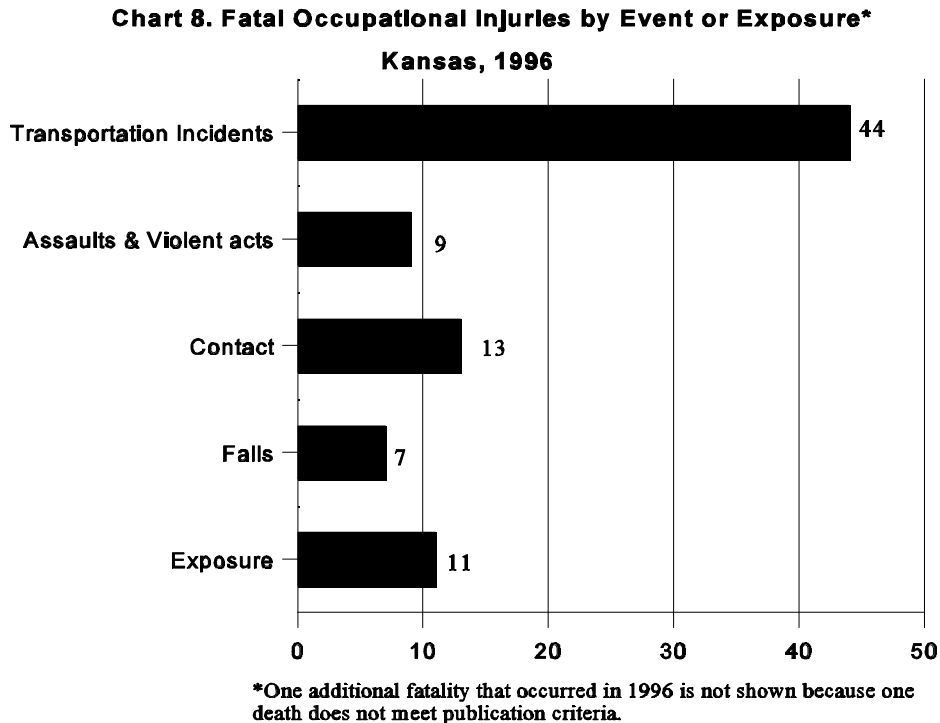
Nonhighway transportation incidents are those that occur on farms or industrial premises and are generally noncollision incidents as were 5 of the 6 nonhighway transportation fatalities that occurred in 1996 in Kansas. Three of the 5 occurred when workers fell from and then were struck by the vehicle or equipment they were using. (Chart 7, Table 3)

The remaining fatal transportation incidents (5) included 3 in which workers were struck by a vehicle or mobile equipment as a pedestrian in a parking lot or other non-road area. (Chart 7, Table 3)



The type of event ranking second in the number of workers lives lost in Kansas (15%) was contact with objects and equipment. A total of 13 workers were killed this way, 5 from being struck by an object, most often a falling object (4) and 7 from being caught in or compressed by equipment or objects. The other fatality in this group involved a worker striking against a stationary object. (Chart 8, Table 3)

The third most common cause of fatal occupational injuries was exposure to harmful substances or environments which accounted for 13% of the occupational fatalities in Kansas. Electrocution accounted for 9 of the 11 deaths in this event group. The remaining 3 deaths were due to exposure to caustic, noxious, or allergenic substances. (Chart 8, Table 3)



Ranking fourth, assaults and violent acts took the lives of 9 workers in Kansas in 1996, or 11% of the 85 fatal occupational injuries. In many states, this event category is second only to transportation incidents. Of the 9 violent occupational injury deaths, 4 were homicides and 3 were suicides. (Chart 8, Table 3)

Examination of the data revealed that all 4 of the homicide victims were white males and were shot to death. Unlike national data for 1996 in which half of the homicide victims worked in retail establishments and where robbery was the primary motive of job-related homicides, none of the homicide victims in Kansas in 1996 worked in retail establishments. The victims included a deputy sheriff, a security officer, a construction supervisor and a construction owner/operator. All three suicides involved the use of a firearm.

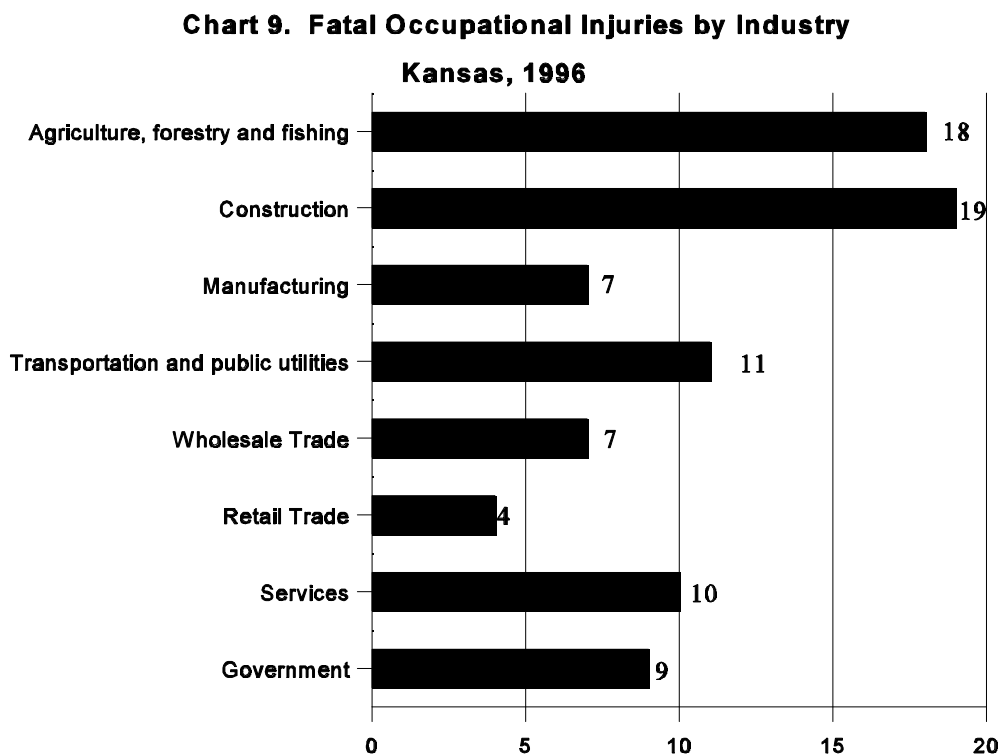
Falls were responsible for the fewest number of fatal occupational injuries in Kansas in 1996 (7) accounting for 8% of the total lives lost on the job. As would be expected, the majority of these, 5, were falls to a lower level. (Chart 8, Table 3)

Industry

More lives were lost in occupational fatalities in the construction industry in Kansas in 1996 than in any other industry in the state with 19 lives lost or 22% of the total. The majority of the deaths occurred in heavy construction, except building (7) and special trades contractors (9). (Chart 9, Table 4)

Agriculture, forestry and fishing had 18 workers die from fatal occupational injuries in Kansas in 1996 with all 18 fatalities in this category in agriculture. Coming in a close second, these deaths accounted for 21% of the total, or about 1 in 5 occupational fatalities. Agriculture production - crops claimed 8 lives while agriculture production - livestock claimed 10. (Chart 9, Table 4)

Transportation and public utilities industries had the third highest number of fatal occupational injuries with 11 occurring in Kansas in 1996. Nine of the 11 occurred in trucking and warehousing. (Chart 9, Table 4)



There were 10 deaths from occupational injuries in the services industry in Kansas in 1996. (Chart 9, Table 4)

There were 9 occupational fatalities to government workers in Kansas in 1996. Government includes fatalities to workers employed by governmental organizations regardless of industry. (Chart 9, Table 4)

The manufacturing industry took the lives of 7 workers in Kansas in 1996. Food and kindred products claimed nearly half of these, with 4 fatal injuries to workers in this industry. (Chart 9, Table 4)

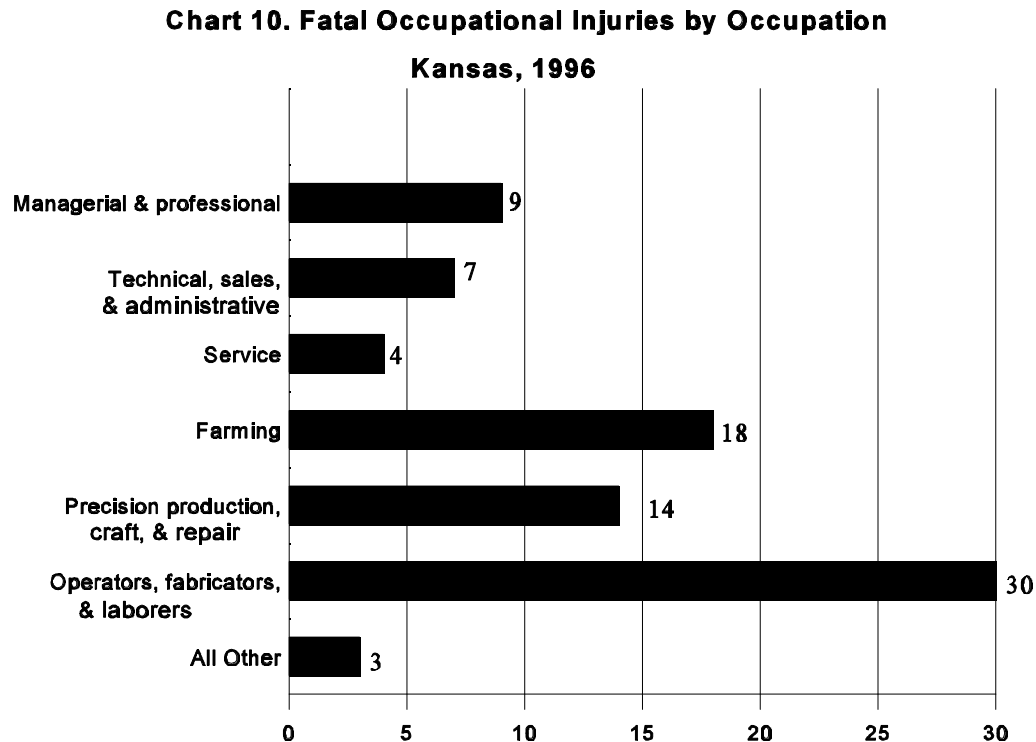
Also with 7 occupational fatalities was wholesale trade. Within this industry, the wholesaling of durable goods accounted for over half (5) the deaths. (Chart 9, Table 4)

Retail trade claimed the fewest lives with 4 occupational fatalities in Kansas in 1996. (Chart 9, Table 4)

Occupation

Over one third (35%) of the 30 workers who suffered fatal occupational injuries in Kansas in 1996 were operators, fabricators, and laborers. Exactly half of these 30 workers (15) were truck drivers. (Chart 10, Table 5)

Farming occupations accounted for the second highest number of fatalities with a total of 18. Fourteen of these were farmers while 4 were farm workers. (Chart 10, Table 5)



Precision production, craft, and repair occupations ranked third in the number of occupational fatalities in Kansas in 1996 with 14 such deaths. Eleven of the 14 workers killed in this occupational group were working in construction trades occupations. (Chart 10, Table 5)

There were 9 workers in managerial and professional occupations who died from fatal occupational injuries in Kansas in 1996. These deaths were nearly evenly divided with 5 of the workers killed working in executive, administrative, and managerial occupations while 4 were in professional specialty occupations. (Chart 10, Table 5)

In the occupational category of technical, sales, and administrative support, there were 7 workers who lost their lives in occupational fatalities in Kansas in 1996. Of these 7, 5 worked in sales occupations. (Chart 10, Table 5)

Workers in service occupations experienced the fewest (4) number of occupational fatalities in Kansas in 1996. (Chart 10, Table 5)

There were no occupational deaths in the military in Kansas in 1996.

**Table 1. Fatal Occupational Injuries by Industry
Kansas, 1991 - 1996**

Industry 1/	Number by Year				
	1991	1992	1993	1995	1996
Total.	86	82	99	95	85
Private Industry.	80	73	86	78	76
Agriculture, forestry and fishing.	23	23	36	17	18
Mining.	7	3	8	6	*
Construction.	15	8	10	20	19
Manufacturing.	8	12	3	9	7
Transportation and public utilities.	13	11	14	9	11
Wholesale trade.	3	3	*	3	7
Retail trade.	6	5	5	5	4
Finance, insurance, and real estate.	*	*	*	*	*
Services.	5	7	6	8	10
Government 2/.	6	9	13	17	9

1/ *Standard Industrial Classification Manual, 1987 Edition*

2/ Includes fatalities to workers employed by governmental organizations regardless of industry.

NOTE: Asterisks indicate no data or data does not meet publication criteria.

NOTE: Totals for major categories may include subcategories not shown separately.
Percentages may not add to totals because of rounding.

SOURCE: Center for Health and Environmental Statistics, Kansas Department of Health and Environment, in cooperation with the Bureau of Labor Statistics, U.S. Department of Labor.

**Table 2. Fatal Occupational Injuries by Selected Characteristics
Kansas, 1996**

Worker Characteristics	Fatalities	
	Number	Percent
Total.	85	100
Employee status		
Wage and salary workers 1/.....	59	69
Self-employed 2/.....	26	31
Sex and age		
Men.	79	93
Women.	6	7
Both sexes:		
Under 20 years.	3	3
20 to 24 years.	11	13
25 to 34 years.	10	12
35 to 44 years.	16	19
45 to 54 years.	17	20
55 to 64 years.	13	15
65 years and over.	15	18
Race		
White.	81	95
Black.	4	5

1/May include volunteers and other workers receiving compensation.

2/Includes paid and unpaid family workers, and may include owners of incorporated businesses, or members of partnerships.

NOTE: Totals for major categories may include subcategories not shown separately. Percentages may not add to totals because of rounding.

SOURCE: Center for Health & Environmental Statistics, Kansas Department of Health and Environment, in cooperation with the Bureau of Labor Statistics, U.S. Department of Labor.

Table 3. Fatal Occupational Injuries by Event or Exposure*
Kansas, 1996

Event 1/	Fatalities	
	Number	Percent
Total.	85	100
Transportation Incidents.	44	52
Highway.	33	39
Collision between vehicles, mobile equipment.	18	21
Moving in opposite directions, oncoming.	6	7
Moving in intersection.	9	11
Noncollision.	14	16
Jack-knifed or overturned-no collision.	12	14
Nonhighway (farm, industrial premises).	6	7
Noncollision accident.	5	6
Fell from and struck by vehicle, mobile equipment.	3	4
Worker struck by vehicle, mobile equipment.	3	4
Worker struck by vehicle, mobile equipment in parking lot or non-road area.	3	4
Assaults and violent acts.	9	11
Homicides.	4	5
Shooting.	4	5
Self-inflicted injury.	3	4
Contact with objects and equipment.	13	15
Struck by object.	5	6
Struck by falling object.	4	5
Caught in or compressed by equipment or objects.	7	8
Caught in running equipment or machinery.	3	4
Falls.	7	8
Fall to lower level.	5	6
Exposure to harmful substances or environments.	11	13
Contact with electric current.	8	9
Contact with overhead power lines.	3	4
Exposure to caustic, noxious, or allergenic substances.	3	4

1/Based on the 1992 BLS Occupational Injury and Illness Classification Structures.

*One additional fatality that occurred in 1996 is not shown in this table because one death does not meet publication criteria.

NOTE: Totals for major categories may include subcategories not shown separately.
Percentages may not add to totals because of rounding.

SOURCE: Center for Health and Environmental Statistics, Kansas Department of Health and Environment, in cooperation with the Bureau of Labor Statistics, U.S. Department of Labor.

**Table 4. Fatal Occupational Injuries by Industry
Kansas, 1996**

Industry 1/	Fatalities	
	Number	Percent
Total.	85	100
Private Industry.	76	89
Agriculture, forestry and fishing.	18	21
Agriculture production - crops.	8	9
General farms, primarily crop.	7	8
Agriculture production - livestock.	10	12
Livestock, except dairy and poultry.	4	5
Beef cattle feedlots.	4	5
Construction.	19	22
General building contractors.	3	4
Nonresidential building construction.	3	4
Heavy construction, except building.	7	8
Heavy construction, except highway.	6	7
Water, sewer, and utility lines.	6	7
Special trades contractors.	9	11
Masonry, stonework, tile setting, and plastering.	3	4
Manufacturing.	7	8
Food and kindred products.	4	5
Transportation and public utilities.	11	13
Trucking and warehousing.	9	11
Trucking and courier services, except air.	8	9
Trucking, except local.	7	8
Wholesale trade.	7	8
Wholesale trade - durable goods.	5	6
Retail trade.	4	5
Services.	10	12
Business services.	3	4
Health services.	3	4
Government 2/.	9	11

1/ *Standard Industrial Classification Manual, 1987 Edition*

2/ Includes fatalities to workers employed by governmental organizations regardless of industry.

NOTE: Totals for major categories may include subcategories not shown separately.
Percentages may not add to totals because of rounding.

SOURCE: Center for Health and Environmental Statistics, Kansas Department of Health and Environment, in cooperation with the Bureau of Labor Statistics, U.S. Department of Labor.

**Table 5. Fatal Occupational Injuries by Occupation
Kansas, 1996**

Occupation 1/	Fatalities	
	Number	Percent
Total.	85	100
Managerial and professional specialty.	9	11
Executive, administrative, and managerial.	5	6
Managers and administrators, n.e.c.	5	6
Professional specialty.	4	5
Technical, sales, and administrative support.	7	8
Sales occupations.	5	6
Sales representatives, commodities except retail.	3	4
Sales representatives, mining, manufacturing, and wholesale.	3	4
Service occupations.	4	5
Farming, forestry, and fishing.	18	21
Farming operators and managers.	14	16
Farmers, except horticultural.	14	16
Other agricultural and related occupations.	4	5
Farm occupations, except managerial.	4	5
Farm workers.	4	5
Precision production, craft, and repair.	14	16
Mechanics and repairers.	3	4
Mechanics and repairers, except supervisors.	3	4
Construction trades.	11	13
Construction trades, except supervisors.	10	12
Electricians and apprentices.	3	4
Operators, fabricators, and laborers.	30	35
Transportation and material moving occupations.	20	24
Motor vehicle operators.	15	18
Truck drivers.	15	18
Material moving equipment operators.	4	5
Handlers, equipment cleaners, helpers, and laborers.	9	11
Helpers, mechanics and repairers.	3	4
Construction laborers.	4	5
All other occupations.	3	4

1/ Based on the 1990 Occupational Classification System developed by the Bureau of the Census.

NOTE: Total for major categories may include subcategories not shown separately.
Percentages may not add to totals because of rounding.

SOURCE: Center for Health and Environmental Statistics, Kansas Department of Health and Environment, in cooperation with the Bureau of Labor Statistics, U.S. Department of Labor.

APPENDIX

SCOPE OF CFOI DATA

The CFOI program includes the private sector, public sector, military, self-employed, and certain volunteers. To be included, a death must have occurred in the reference state (in this case, Kansas) during the reference year (in this case, 1996), and must be work-related. In the CFOI program a fatality is considered work-related only if the deceased was working for pay or other compensation at the time of the incident. Additionally, the deceased must be on the employers' premises, or, if at a different site, engaged in work activity or present there as a condition of employment. Though the focus is primarily on injury-related deaths, illnesses that are determined to be work-related or that occur at work, such as heart attacks, are also considered to be within the scope of the program therefore information pertaining to fatal illnesses that are recognized to be work related, or which occur at work, is also gathered by CFOI. CFOI criteria are generally broader than the criteria used by Federal and State agencies administering specific laws and regulations.

COLLECTION METHODS

The CFOI program produces a single, reliable census of workplace fatalities. Currently, annual estimates of the national work related fatalities range between 3,000 and 11,000 deaths per year. Reasons for this wide range of estimates can be explained by differences in statistical methods. In most cases the estimate is based on a single source document, such as workers' compensation reports which by definition exclude self-employed, government employees and other specified sectors of the labor force.

To insure that fatalities are work related, cases are researched from different sources until a work relationship is either determined or rejected. Two or more independent source documents or a source document and a follow-up questionnaire must document each case. Organizations providing source documents for the CFOI program and the document they provide include: Kansas Department of Health and Environment, Kansas death certificates; Kansas Department of Human Resources, Division of Workers Compensation, fatal workers compensation reports; Occupational Safety and Health Administration, OSH-36 and OSH-170 reports; county coroners in Kansas, autopsy reports, coroners reports, and toxicology reports; clipping services, newspaper clippings; and Kansas law enforcement agencies, police reports. Cases identified as in-scope are coded in detail, providing information on approximately thirty data elements collected, including information about the worker, the fatal incident, the machinery or equipment involved and circumstances surrounding the accident.

CLASSIFICATION SYSTEMS USED

The CFOI program uses the following classification system to code/classify data elements collected.

- (1) the Occupational Injury and Illness Classification Structures, to classify the nature of injury, part of body affected, event or exposure, source of injury and secondary source of injury;
- (2) the 1987 Standard Industrial Classification Manual, to classify the industry of the employer;
- (3) the 1990 Bureau of the Census Alphabetical Index of Industries and Occupations, to classify the occupation of the decedent; and
- (4) Federal Information Processing Standards (FIPS) codes, to classify geographic areas.